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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GRAY, LINDA L

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/782,442

Applicant(s)

PHILLIPS, CHARLES

Examiner

Linda L. Gray

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004 and 28 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12 and 14-23 is/are rejected.
- 7) ☒ Claim(s) 9 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Detailed Action

Claim Rejections - 35 USC 112

- 1.** The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the application regards as his invention.

- 2. Claim 4 is rejected under 5 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 4, "the sealing station" lacks antecedent basis.

Claim Rejections - 35 USC 102

- 3.** The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless - (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States, and

- 4. Claims 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rouse (US 2002/0094747 A1).**

Claim 17, Rouse teaches an arrangement capable of manufacturing an object (i.e., balloon) including the following items:

(a) means capable of supplying a support carrier of a shape-retaining material, such as polyester, where the means includes, for example, a rotating spool,

(b) means capable of positioning a lower film of a flexible material, such as polyester, on and in overlapping relationship with the carrier, where the means includes, for example, a rotating spool,

Art Unit: 1734

(c) means capable of positioning an upper film of a flexible material, such as polyester, on and in overlapping relationship with the lower film, where the means includes, for example, a rotating spool, and

(d) means for sealing overlapping portions of the films together, using various heated dies of different shapes (such as die 92 or 120), to form a sealed film assembly while the films are on the carrier.

The limitation that the lower film is more flexible than the carrier, such refers to the material operated upon and does not further limit the structure of the claimed apparatus.

Claim 18, Rouse teaches means capable of adhering the lower film to the carrier simultaneously with operation of the means in item (d) (i.e., the means in item d is capable of performing both functions) which maintains a correct positional relationship between the assembly and the carrier during manufacture. **Claim 19**, Rouse teaches means capable of cutting the films while the films are on the carrier in that die 92 includes is a heated sealer having cutting-sealers 96. **Claim 20**, Rouse teaches a means capable of printing on the assembly in registration with the carrier.

5. Claims 1-2, 6-8, 10-12, 15-19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Buchanan (US 4,545,844).

Claim 1, Buchanan teaches a method of manufacturing an object (i.e., balloon) including the following steps:

(a) forming support carrier 13 (of web W2) of a shape-retaining material such as aluminum,

(b) positioning lower film 14 (of web W2) of a flexible material, such as polyethylene more flexible than the carrier, on and in overlapping relationship with carrier 13,

(c) positioning upper film 14 (of web W1) of a flexible material, such as polyethylene more flexible than the carrier, on and in overlapping relationship with lower film 14, and

(d) sealing overlapping portions of films 14 and 14 together, using heated die 39, to form a sealed film assembly while films 14 and 14 are on carrier 13 (c 2-5, 7).

Claim 2, Buchanan teaches the step of feeding carrier 13 from a carrier roll through a sealing station where the sealing is performed and teaches that the positioning

steps are performed by feeding films 14 and 14 from respective rolls through the station (one being fed with carrier 13). **Claim 6**, Buchanan teaches the step of laminating lower film 14 to carrier 13 prior to performing the sealing step (i.e., feed together in a laminated state as web W2). **Claim 7**, Buchanan teaches the step of cutting films 14 and 14 while films 14 and 14 are positioned on carrier 13. **Claim 8**, Buchanan teaches that the cutting step is performed simultaneously with the sealing step. **Claim 10**, Buchanan teaches the overlapping portions are sealed boundary areas extending at least partially along a periphery of the object being manufactured where it is clear that the cutting step is performed at least partially within the boundary area as shown in Figures 10-11. **Claim 11**, Buchanan teaches carrier 13 to have peripheral edges, and the boundary areas are cut along a cutting line located at a spacing from the edges. Also, Buchanan teaches the step of removing films 14 and 14 from the spacing. **Claim 12**, Buchanan teaches that carrier 13 has peripheral edges, and the boundary areas are cut along a cutting line located at a spacing from the edges. Also, Buchanan teaches the step of leaving films 14 and 14 in the spacing -- at least for a time until the spacing is removed such that the balloon can be used. Buchanan teaches inflating the balloon; thus, a valve is clearly inserted into the balloon for such to occur. **Claim 16**, Buchanan teaches films 14 and 14 to overlap and contact each other over a surface area where the surface area can be defined as the area where films 14 and 14 are adhered.

Claim 21, Buchanan teaches a sealed film assembly (i.e., balloon) including the following items:

- (a) support carrier 13 of a shape-retaining material, such as aluminum,
- (b) lower film 14 (of web W1) of a flexible material, such as polyethylene more flexible than the carrier, on and in overlapping relationship with carrier 13,
- (c) upper film 14 (of web W2) of a flexible material, such as polyethylene more flexible than the carrier, on and in overlapping relationship with the lower film 14, and
- (d) overlapping portions of films 14 and 14 being sealed together to form the assembly while films 14 and 14 are positioned on carrier 13.

Claim 17, Buchanan teaches an arrangement capable of manufacturing an object (i.e., balloon) including the following items:

- (a) means capable of supplying support carrier 13 of a shape-retaining material, such as aluminum,
- (b) means capable of positioning lower film 14 (of web W1) of a flexible material, such as polyethylene, on and in overlapping relationship with the carrier 13,

Art Unit: 1734

(c) means capable of positioning upper film 14 (of web W2) of a flexible material, such as polyethylene, on and in overlapping relationship with lower film 14, and

(d) means for sealing overlapping portions of films 14 and 14 together, using heated die 39, to form a sealed film assembly while the films are on the carrier.

The limitation that the lower film is more flexible than the carrier, such refers to the material operated upon and does not further limit the structure of the claimed apparatus.

Claim 18, Buchanan teaches means capable of adhering lower film 14 to carrier 13 simultaneously with operation of the means in item (d) (i.e., the means in item d is capable of performing both functions) which maintains a correct positional relationship between the assembly and carrier 13 during manufacture. **Claim 19**, Buchanan teaches means capable of cutting films 14 and 14 which films 14 and 14 are on carrier 13 in that die 39 includes a sealer and a cutter simultaneously.

6. Claims 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Buchanan (US 4,721,491).

Claim 22, Buchanan teaches inflatable assembly 10 including the following items:

(a) a pair of overlapping, flexible films (c 1, last para) having portions sealed together to bound an interior,

(b) an inlet on the films for admitting gas into the interior (c 2, first full para), and

(c) elongated valve 13 11 extending from the inlet into the interior, valve 13 having a remote portion spaced away from the inlet and adhered to one of the films (Fig 1; c 2, to c 3).

Claim 23, Buchanan teaches elongated support 16 and/or 22 extending along valve 13 for supporting the films in an erect state on support 16.

Claim Rejections - 35 USC 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1734

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 5-8, 10-12, 14-16, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rouse. (US 3,339,337).

Claim 1, Rouse teaches a method of manufacturing an object (i.e., balloon) including the following steps:

- (a) forming a support carrier of a shape-retaining material such as polyester,
- (b) positioning lower film 118 of a flexible material, such as polyester, on and in overlapping relationship with the carrier,
- (c) positioning upper film 116 of a flexible material, such as polyester, on and in overlapping relationship with film 118, and
- (d) sealing overlapping portions of films 118 and 116 together, using various heated dies of different shapes (such as die 92 or 120), to form a sealed film assembly while films 118 and 116 are on the carrier (paras 38, 92-93, 96, 114-115, Figs 11-13).

Note that Rouse recites using multiple layers of the polyester material beyond the two layers 118 and 116 shown in the drawing and specifically discussed. Thus, Rouse teaches at least three polyester layers where one of the polyester layers is acting as the carrier layer.

Claim 1, Rouse does not teach a less flexible carrier layer such as heavy paper.

However, less flexible materials such as heavy paper and metallic layers are conventional materials for the back of an inflatable assembly, and it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Rouse using a carrier layer of heavy paper or a metallic layer in that it is obvious to replace one material for an inflatable assembly with another art recognized alternative material.

Claim 2, Rouse teaches the step of feeding the carrier from a carrier roll (i.e., spools) through a sealing station where the sealing is performed and teaches that the positioning steps are performed by feeding films 118 and 116 from respective rolls (i.e.,

spools) through the station. **Claim 3**, Rouse teaches the method includes the step of coating films 118 and 116 with fusible coating such as adhesives. Positioning of films 118 and 116 includes feeding such with the coating facing each other. **Claim 5**, Rouse teaches the step of adhering film 118 to the carrier simultaneously with performing the sealing step which maintains a correct positional relationship between the assembly and the carrier during manufacture. **Claim 6**, Rouse teaches laminating (i.e., sealing) from the top beginning with film 116, down to film 118, and then to the carrier. Thus, film 118 is laminated to the carrier prior to the carrier being laminated (i.e., sealed) to another layer which Rouse teaches can be under the carrier if so desired. **Claim 7**, Rouse teaches the step of cutting films 118 and 116 while films 118 and 116 are positioned on the carrier in that die 92 includes is a heated sealer having cutting-sealers 96. **Claim 8**, Rouse teaches cutting simultaneously with sealing in that Rouse teaches heated sealer 92 having cutting-sealers 96. **Claim 10**, Rouse teaches the overlapping portions are sealed boundary areas extending at least partially along a periphery of the object being manufactured where it is clear that the cutting step is performed at least partially within the boundary area as shown when a roller sealer is used. Specifically, see sealer 92 having cutting-sealers 96 which bond at the point of cutting. **Claim 11**, Rouse teaches the carrier to have peripheral edges, and the boundary areas are cut along a cutting line located at a spacing from the edges. Also, Rouse teaches the step of removing films 118 and 116 from the spacing. **Claim 12**, Rouse teaches the carrier has peripheral edges, and the boundary areas are cut along a cutting line located at a spacing from the edges. Also, Rouse teaches the step of leaving films 118 and 116 in the spacing -- at least for a time until the spacing is removed such that the balloon can be used. **Claim 14**, Rouse teaches the step of printing on the assembly in registration with the carrier. **Claim 15**, Rouse teaches inflating the balloon; thus, a valve is clearly inserted into the balloon for such to occur. **Claim 16**, Rouse teaches films 118 and 116 to overlap and contact each other over a surface area where the surface area can be defined as the area where films 118 and 116 are adhered.

Claim 21, Rouse teaches a sealed film assembly (i.e., balloon) including the following items:

- (a) a support carrier of a shape-retaining material, such as polyester,
- (b) lower film 118 of a flexible material, such as polyester, on and in overlapping relationship with the carrier,
- (c) upper film 116 of a flexible material, such as polyester, on and in overlapping relationship with the film 118, and
- (d) overlapping portions of films 118 and 116 being sealed together to form the assembly while films 118 and 116 are positioned on the carrier.

Claim 21, Rouse does not teach a less flexible carrier layer such as heavy paper.

However, less flexible materials such as heavy paper and metallic layers are conventional materials for the back of an inflatable assembly, and it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Rouse using a carrier layer of heavy paper or a metallic layer in that it is obvious to replace one material for an inflatable assembly with another art recognized alternative material.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rouse as applied to claims 1-3, 5-8, 10-12, 14-16, and 21 above, and further in view of in view of Rapp et al. (US 3,339,337).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan in view of Rapp et al.

Claim 4, Rouse and Buchanan teach the step of conveying the carrier on sealing belt 100 through the sealing station; however, such do does not teach belts 100 and 20, respectively, to be a silicone one.

However, Rapp et al. teach silicone conveyor belts to be well-known (c 2, last full para) where such prevents sticking between the belt and articles thereon, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Rouse and Buchanan that belt 100 and 20, respectively, be a silicone one.

10. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan '844 in view of Rouse.

Claim 14, Buchanan does not teach printing on the sealed assembly and does not teach a printing means for the apparatus to print in the balloon (claim 20).

However, in view of Rouse it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Buchanan printing on the sealed assembly and a printing means for the apparatus to print in the balloon because Rouse teaches doing such printing and providing a means to print where this would allow one to decorate the balloon of Buchanan as necessary or desire.

Allowable Subject Matter

Art Unit: 1734

11. Claims 9 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: **claims 9 and 13**, the prior art of record does not teach cutting after sealing in that Buchanan '844 and Rouse cut and seal at the same time using heated cutting-sealing dies.

13. As allowable subject matter has been indicated, Applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See CFR 1.111(b) and MPEP 707.07(a).

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Gray whose telephone number is (571) 272-1228. The examiner can normally be reached Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla, can be reached at (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

llg
July 25, 2005

Linda R Gray
LINDA GRAY
PRIMARY EXAMINER